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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/779,512	Applicant(s) JECHOUX, BRUNO	
	Examiner Joy K. Contee	Art Unit 2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 12-14, 17-20 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 12-20 have been considered but are moot in view of the new grounds of rejection.
2. In Applicant's remarks/arguments filed 4/12/05, Applicant indicates that it is "noted in the Official Action" that the Schlekeway reference fails to disclose or suggest mechanical rotation of sectors (see claim 13). Examiner disagrees. Claim 13 is written in the alternative form. In the Official Action mailed on January 13, 2005, Examiner chose to reject claim 13 in the alternative with Schlekeway, since both limitations were not required to be met. For clarification, Examiner did not state that Schlekeway does not disclose or suggest the other alternative limitation (i.e., with respect to mechanically rotating the transmission/reception antennae), see new rejection below with respect to claims new claims 23-25.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Schlekewey et al. (Schlekewey), U.S. Patent No. 6,181,276.

Regarding claims 23 and 24, Schlekewey discloses a method of distributing communications established by radio communication terminal, within a geographic cell of radio-communication network, said geographic cell being subdivided into at least two geographic sectors, the improvement comprising:

mechanically rotating an orientation of at least one of said at least two geographic sectors (reads on controller adapted to manipulate switch matrices and phase shifters to transition between sector configurations) at least one of transmission antennae and a reception antennae associated with said at least two geographic sectors (see Schlekewey, col. 8, line 55 to col. 10, line 9) if in the alternative, a number of links established in one of said at least two geographic sectors is greater than a predetermined number of link (dynamically adjusting the sector azimuth pointing angles and/or sector bandwidths to meet changes in loading, such as, during certain times of the day, a sector may service more users than during other time of the day, by synthesizing desired radiation patterns through switching switch matrices to provide the sector signal in the desired area or sector) (col. 4, lines 60-66 and col. 6, line 60 to col. 7, line 2 and col. 8, line 55 to col. 9, line 5 and lines 10-43 and see Figs. 2A & 4A).

Regarding claim 25, Schlekewey discloses a base station for a cell of a radio communications network, comprising: means for distributing communications among sectors in a cell according to any one of the steps of claims 12-17 (see Schlekewey, col. 6, lines 1-11 and col. 9, lines 10-43).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-14,17,19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlekewey et al. (Schlekewey), U.S. Patent No. 6,181,276, previously used, in view of Martek et al. (Martek), U.S. Patent No. 5,969,689, newly discovered.

Regarding claim 12, Schlekewey discloses a method of distributing communications established by radio communication terminal, within a geographic cell of radio-communication network, said geographic cell being subdivided into at least two geographic sectors, the improvement comprising:

dynamically adjusting the sector azimuth pointing angles and/or sector bandwidths to meet changes in loading, such as, during certain times of the day, a sector may service more users than during other time of the day, by synthesizing desired radiation patterns through switching switch matrices to provide the sector signal in the desired area or sector (i.e., reads on rotating an orientation of at least one of said at least two geographic sectors if, in the alternative, a number of links established in one of said at least two geographic sectors is greater than a predetermined number of links) (col. 4,lines 60-66 and col. 6,line 60 to col. 7,line 2 an col. 8,line 55 to col. 9,line 5 and lines 10-43 and see Figs. 2A & 4A).

Schlekewey does not explicitly disclose synchronously (i.e., Examiner interprets to read on “homogeneous” in light of Applicant’s specification) rotating an orientation of all of at least two geographic sectors.

However, in a similar field of endeavor Martek discloses synchronously (e.g., reads on aligning antenna modules of multiple cluster antenna system, see Fig. 1a) rotating an orientation of all of at least two geographic sectors (col. 8, line 49 to col. 9, line 6 and col. 10, line 64 to col. 11, line 1 and col. 12, lines 39-50).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Schlekewey to include synchronous rotation of antennae for the purpose of providing a homogenous coverage are using at least two sectors or antenna clusters (see Martek, col.8, lines 29-48).

Regarding claim 13, the combination of Schlekewey and Martek discloses the method according to claim 12, wherein said step of rotating comprises in the alternative:

reconfiguring a beam of a smart antennae (i.e., reads on dynamic configuration of the sectors using adaptable phased array antennas) associated with said at least one of said at least two geographic sectors (see Schlekewey, col. 7, lines 24-51 and col. 9, lines 10-43).

Regarding claim 14 the combination of Schlekewey and Martek discloses the method according to claim 12, wherein said step of rotating comprises, in the alternative:

inherently rotating only if a number of links established in another of said at least two geographic sectors is less than said predetermined number of links (i.e., reads on

Art Unit: 2686

switching switch matrices to provide a given sector signal to a corresponding antenna beam) (see Schlekewey, col. 6, line 60 to col. 7, line 23 and col. 8, line 55 to col. 9, line 5).

Regarding claim 17, the combination of Schlekewey and Martek discloses the method according to claim 13, wherein when said cell is subdivided into three sectors (see Fig. 2A), inherently said rotation step is not implemented if two of said three sectors have an identical number of established links (reads on time when a cell's capacity is better utilized when spread more homogeneously throughout the cell's coverage area (see Schlekewey, col. 6, line 60 to col. 7, line 2))

Regarding claim 19, the combination of Schlekewey and Martek discloses a device for the distribution of communications established by radio-communication terminals, within a cell of a radio-communications network, comprising:

means for rotating an orientation of sectors in said cell according to any one of steps of claims 12-17 (see Schlekewey, col. 6, lines 1-11 and col. 9, lines 10-43).

Regarding claim 20, the combination of Schlekewey and Martek discloses a base station for a cell of a radio communications network, comprising: means for rebalancing a communication load (reads on controlling sectors to provide different azimuth grid point alignment based on e.g., local traffic or interference) among sectors in a cell according to any one of the steps of claims 12-17 (see Schlekewey, col. 6, lines 1-11 and col. 9, lines 10-43).

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schlekewey and Martek, in further view of Keskitalo et al. (Keskitalo), U.S. Patent No. 5,966,670, previously used in rejection.

Regarding claim 18, the combination of Schlekewey and Martek disclose the method according to claim 12. The combination does not explicitly disclose, wherein said step of rotating comprises: matching a sector rotation speed to a time for carrying out a transfer of communication from one sector to another.

In a similar field of endeavor, Keskitalo discloses matching a sector rotation speed to a time for carrying out a transfer of communication from one sector to another (col. 10, lines 4-15).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Schlekewey and Martek to include matching sector rotation speed to a time for transferring communication signals for the purpose of minimizing a delay in the transfer of communication signals from one cell or sector to another (e.g., handoffs).

Allowable Subject Matter

8. Claims 21-22 are allowed.
9. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K. Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571.272.7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2686

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC

Jay K. Contee
JAY K. CONTEE
PATENT EXAMINER